Report on **Master Thesis**

Institute of Economic Studies, Faculty of Social Sciences, Charles University in Prague

Student:	**Gregory Quarshie**
Advisor:	**Prof. Ing. Karel Janda, Ph.D.**
Title of the thesis:	**Freeing the resource curse; The Economics of natural resources and black gold in Sub-Saharan Africa**

OVERALL ASSESSMENT *(provided in English, Czech, or Slovak):*

The thesis discusses the role of the natural resources for the economic development – focusing on the economic growth of the sub-Saharan countries. The thesis is organized into five parts comprising the Introduction, Literature review, overview of Sub-Saharan African economies, Data and methodology and Results. The overview of sub-Saharan African economies leaves the reader generally uninformed regarding the main economic characteristics of the above countries, the author focusing on discussing several variables used in the analysis and issues related to the relationship between external debt, trade, life expectancy and population and economic growth. Therefore this section could well be fitting either to the literature review section or, with certain amendments to the data and methodology section. The methodology and results section are very "thin" as they are, and raise questions regarding the robustness of the results. We will discuss in turn some of the shortcomings of these sections.

First, while the literature review is the amplest and most detailed section of the thesis it misses on several important pieces of work which could have been crucial in using a more robust empirical strategy. For instance, Levine & Renelt (1991) discuss in detail the main shortcomings of the growth regressions and provide a series of fixes and testing strategies. Levin (2004) provides further review of the growth literature – although the paper focuses on the finance and economic growth nexus. These two papers would have helped the author get a more critical view of the methodology and of many of the results reported in the literature review as well as his own results.

Second, the author treats simplistically the empirical part. He uses Polity as an exogenous variable and applies a simple fixed effects model. It is well documented by now, that institutional variables are highly endogenous, (Hall & Jones, 1998; Acemoglu et al., 2001; Sala-i-Martin & Subramanian, 2003). This renders simple panel regressions incorrect. An instrumental variable estimation is usually prescribed for this cases. The instruments most often employed are the mortality rates of settlers (Acemoglu et al., 2001) or fraction of population speaking English or other European language (Hall & Jones, 1998). Therefore, both the sign and significance of the polity variable in the regressions and its interaction with the natural resources or oil exports are prime suspects in this case. Thus the conclusion that "Democracy is very expensive" is a rather strong assertion in the actual empirical framework, as is the conclusion that the better institutions are conductive of faster economic growth. Moreover, solely on the basis of the size of the coefficients obtained the author concludes that "oil revenue causes more havoc than the much broader group of natural resources". The author does not provide a clear indication of the way he employees the variables, and he also fails to provide the mean value of the resources and oil revenues, it is therefore difficult to judge what the impact of these variables are on the economic growth. The difference in the coefficients could be simply a different mean value of the variables, while the quantitative impact could be equal. Therefore, all these conclusions fail to be supported by strong evidence and are rather precipitous.

Third and the final point refers to the robustness checks. The author provides some discussion of the fixed and random effects panel models and the accompanying tests. As it stands this robustness exercise does not suffice to validate the results. The following exercises should have been conducted in order to qualify for proper robustness tests. First, the regressions should have been rerun using an IV panel approach. Second, the empirical

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model should have been enriched with variables accounting for fiscal policy, international trade and price distortions and monetary policy indicators in order to ensure that there is no omitted variable bias, or to see how these variables impact the baseline results. Furthermore, the author should have used several other measures of the quality of institutions measures to confirm the results. This is due to the measurement problems, see (Acemoglu et al., 2001; Kaufmann et al., 2002). The author also does not provide a discussion of possible leverage effects some of the observations might exert on the results. Using Belsey-Kuh-Welsch (1980) test significant deviation in the data can be determined and eliminated. After the elimination the regressions should be re-run to confirm or infirm the results. Finally, the discussion should be extended to the other oil exporting countries, such as those from Middle East many of which do actually have a rather good economic performance, albeit the institutional quality is far from being a benchmark. Therefore, an extended sample of countries would have been another good check for the reported results. As it stands the empirical part of the paper is very thin and inconclusive and does not contribute in any material way to the previous results found in the literature.
Given the overall criticism of the empirical methodology and its implementation I believe that the conclusions drawn by the author are too strong. The evidence provided in support of the "resource curse" – although in line with some prior lines of research – is too weak.
Finally the author has several omissions and many grammar mistakes in the text. A more thorough proofreading is required for the whole thesis. The language used in the text deviates considerably from a formal, academic language and at times the phrases get out of control, e.g. "Now when they accounted for these variables, by including these variables as independent variables in the economic growth (dependent) and the natural resource (independent) equation in a cross-country regression, it was found that, natural resource has a positive relationship with economic growth." (page 6), and many other similar instances. Moreover the graphics and tables in the text do not have a uniform formatting and the summary statistics misses several important variables which were used in the regressions. Overall, I would recommend – in case of a successful defense – "dobře" (3).

SUMMARY OF POINTS AWARDED *(for details, see below):*

CATEGORY		**POINTS**
Literature	*(max. 20 points)*	15
Methods	*(max. 30 points)*	10
Contribution	*(max. 30 points)*	6
Manuscript Form	*(max. 20 points)*	12
TOTAL POINTS	*(max. 100 points)*	**43**
GRADE	**(1 – 2 – 3 – 4)**	**3 (dobře)**

NAME OF THE REFEREE: Adrian Babin

DATE OF EVALUATION: 18.06.2014

_***Referee Signature***